CLAIMS

A method for measuring a multimode optical fiber comprising:
 monitoring a temperature change within a measurement time in a DMD
 measurement of the multimode optical fiber,

wherein the DMD measurement is carried out in an environment in which a magnitude of temperature change is controlled.

- The method for measuring a multimode optical fiber according to claim 1,
 wherein a product of a measurement time and a rate of temperature change during the measurement of the measured fiber is 0.4°C or less.
 - 3. The method for measuring a multimode optical fiber according to claim 1, wherein a product of the measurement time and a rate of temperature change during the measurement of the measured fiber is 0.3°C or less.
 - 4. The method for measuring a multimode optical fiber according to claim 1, wherein the measurement is carried out in an environment in which a rate of temperature change of the ambient environment is controlled to $\pm 1.0^{\circ}$ C/hour or less.

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- 5. The method for measuring a multimode optical fiber according to claim 1, wherein the measurement time is set within 10 minutes.
- 6. The method for measuring a multimode optical fiber according to claim 1, wherein the measurement time is set within 3 minutes.

7. The method for measuring a multimode optical fiber according to claim 1, wherein the measurement is carried out in an environment in which a rate of temperature change of the ambient environment is controlled to $\pm 1.0^{\circ}$ C/hour or less and the measurement time is set within 10 minutes.

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8. The method for measuring a multimode optical fiber according to claim 1, wherein the DMD measurement is carried out after placing the fiber to be measured in the measurement environment until a temperature of the optical fiber substantially equals a temperature of the measurement environment before carrying out the DMD measurement.